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ORIGINAL.

WHAT PART SHOULD PHYSICIANS TAKE IN MUNICIPAL AFFAIRS.

BY C. F. MARKEL, M. D., COLUMBIA,
PA.

The subject assigned me appears somewhat unique in character, perhaps more on account of it being my fortune or misfortune of holding a municipal office. Did such an office command a lucrative salary, I should perhaps need to defend my position more vigorously than I propose doing under prevailing circumstances. Positions of honor are sought after as desirable achievements in all walks of life. The medical profession is no exception to this rule. In looking about us, we find the medical man engaged in side issues almost without limit. We find him in the halls of Congress, occasionally he ornaments the pulpit. We have seen him decorate the bar of justice. The board of education and civil government are productive of his presence. Industrial organizations abound and thrive with the professional man as their cornerstone. He becomes a very useful adjunct in banking institutions. His usefulness is noticeable and daily becoming more popular behind the prescription case. We are acquainted with medical men who have a very fair knowledge of farming and horse-training. All

these may sometimes prove valuable additions, not always because the medical man has missed his calling as a practitioner of medicine, making it necessary to follow other trades and professions in order that he may gain a livelihood, but because a bright physician will prove himself useful and an important factor in other paths in the same marked degree as in his profession. It is the educated physician who has made human nature and human economy a life study, and it is a thorough knowledge of these that furnishes the nucleus to success in life.

Our Creator says man is fearfully and wonderfully made. The physician finds no reason to doubt the Creator's assertion, for next to the Creator's knowledge of the human construction, comes that of the physician. The child looks upon the medical man in awe and astonishment, because of his wonderful abilities. His achievements are not lost sight of by older heads if he properly conducts himself. He commands the respect and honor of all who come in contact with him. The public occasionally expects him to serve in positions of trust, not alone because of his ability, but because of his influence which he has or should have in a community.

Unfortunately there are lambs in the profession adorned with black wool, whose existence mar our nobil-

ity and threaten our fame, and because of this misfortune may be traced the fact that the profession occasionally suffers from retrogradation. There has been of late years a disproportionate annual addition to our already overcrowded ranks, and the colleges of the United States are still grinding them out at the rate of more than three thousand per year; as a consequence there are to-day in nearly every community probably three doctors where one is needed. Austria has one physician for every 2,500 inhabitants; Germany, one for every 3,000; France, one for every 2,000, while in the United States we have one for every 600. The result is that many able and worthy ones must necessarily languish. The medical doors and windows are open wide to all who wish to enter, and many enter, who prove themselves maliciously antagonistic, yet in the face of these facts the honorable physician's duty is to treat such malicious rivalry with golden rule etiquette.

The legitimate practitioner in order to cope with honorable and dishonorable competition, will require a variety of talents. He will need to come in contact with all kinds of people. Acuteness in adapting himself to all classes is a very useful quality, and is one in which some physicians are sadly deficient. A doctor needs more than a medical education. He should strive to possess an acquaintance with general scientific subjects, and general literature. He should be able to prove himself a satisfactory legislator in municipal affairs, when called upon by the ballot of the public to act in that capacity. I have no desire to advocate the propriety of a physician taking a prominent part in politics. For, to a modern politician it means

the sacrifice of more time, money, and sometimes honor, than he can afford to lose. But I believe it to be an honored privilege as well as an important duty, for a physician to take a conservative part in the municipal affairs in the community in which he resides. Experience has taught me that it affords ample opportunity to study human nature, which, in itself, is a very important factor. As a municipal officer, opportunity is frequently given him by which he can make his influence felt in matters of very great importance, not only to his colleagues but to the community and State.

There is a State law establishing a "Board of Health" in communities, yet this State law makes no provision for its existence. What can be expected of a Board of Health which is handicapped on all sides because of the want of funds for their conservative use? Fortunately these organizations are very largely made up of medical men, who are abundantly able to fulfill the office requirements. He spends much of his time gratuitously endeavoring to formulate plans and laws by which the dreaded contagious diseases may be held under control. He, above all others, vividly realizes the importance of an ounce of prevention compared with the pound of cure. Under the present unfortunate prevailing circumstances he oftentimes finds it necessary to go down into his pocket and spend his hard-earned cash for the benefit of his patient, who happens to be too poor to provide expensive drugs such as are required to save his life, that life may be a poor and apparently insignificant one to-day, it is nevertheless a God-given life, whose existence may some time be lifted out of the slums of filth and deg-

redation, and placed upon a level or far above the one surrounded by wealth, luxury and fame. Herein lies the opportunity for the physician to exercise loyalty, and demonstrate to the public his noble and generous character. But, alas, how seldom does the public appreciate the generosity and true noble character of practitioners and how eager they are then to express adverse opinion and circulate reports having a tendency to reflect upon his professional ability, integrity, and personal character.

The generosity of the physician, however, regardless of its commendability, must necessarily have a limit, for I think you will bear me out in the assertion that there exist to-day in the ranks of our profession, fewer rich men or even men of ordinary means, than in any other profession or trade. This is an unfortunate and unwarranted reality and may be accounted for, because of the fact that the ambitious and progressive young man who knocks at the doors of our reputable medical halls for admission only does so after he has spent a large amount of his time and money in securing such a preliminary education as will insure for him worthy recognition and an honest purpose. He realizes that the medical profession is among the highest and noblest, and no opportunity is allowed to pass unimproved which will tend toward improvement. No sacrifice is to him too great, even though he be penniless after acquiring an honorable diploma. With his now almost perfect equipment (barring the exception of an empty purse perhaps) he looks forward with bright prospects into a seemingly promising future, imbued with the hope that by conservative action and an honest purpose he may, ere long, win the con-

fidence of the community in which he resides, and thereby receive the patronage which he so well deserves. But ere long he will come in contact with the unprincipled and notorious quack, the herb fiend, the water doctor, and other so-called doctors, who because of lack of brains, failed in truck-farming, store-keeping and country school-teaching, somehow found their crooked way into the ranks of the medical profession, perhaps through the channels of colleges that never existed.

He now begins to realize that an unsuspecting public has been imposed upon by men who have no reputation, and therefore can lose none, no conscience that will prick, and wholly devoid of character. These men have succeeded in ensnaring people who invite deception. Like the spider, they have woven their web of trickery about the fly, that extrication is next to impossible. Need we wonder that the reputable young and even old physician oftentimes becomes discouraged and loses the pride which he so fondly cherished. The reputable doctor is not always given the consideration and patronage which he deserves. But there is a silver lining to professional clouds. Opportunities will come (and I know of no more fruitful channel than the medical profession) where true motives and sterling worth can be so thoroughly demonstrated. Men may and do gain reputations in other walks of life, but seldom does it become necessary for them to make sacrifices and risk their lives and those of his family, as does the physician.

The public fails to appreciate these facts as it should, and what is still worse, very often fails to pay him for his services.

In referring back to my subject, as to the propriety of physicians taking an interest in municipal affairs, I trust that I may have succeeded in convincing my associates in medicine that such a course is justifiable and in many instances advantageous. But I am nevertheless free to admit that while it may be expedient and perhaps profitable to himself and the community, for the practitioner to indulge in other and minor pursuits including such as were referred to, yet in a true professional light these diversions are perhaps only warranted in the light of exceptions to the rule. Strictly speaking, the practice of medicine should be divorced from every thing else. It may seem paradoxical to include such offices as coroner, vaccine physician, sanitary inspector, public speech-making, and—the drug business.

By holding a municipal office the physician it is true oftentimes finds opportunities by which he can be of effectual service to his fellows and the community, by using his influence in procuring important legislation and thus secure the much needed appropriation for sanitary and other purposes. But municipal offices at this modern day are usually political offices, and politics even when honorably pursued are ruinous, especially to the young physician, and when pursued later in life after his medical reputation has been established, militates against him. If honorably politics injure like this, how much worse are Ward demagogueism and wire pulling at primaries. It is perhaps easier to make \$10, and ten friends, in medicine than to hold one friend and one dollar in politics, besides escaping many anxious hours and bitter disappointments.

It is therefore not because of any

financial benefits which he seeks to derive that the medical man is found holding municipal office, but when you find him managing a farm, drug-store, or standing at the head of some important industry he is there for a purpose. Men do not invest their money in business and enterprise for glory. Why then does he not confine himself exclusively to his practice? The answer is to me simple and plain. Physicians like other people have families who look to them for support. He is expected to furnish them and himself with wearing apparel which will measure up to the fashion. The public wants him to live in a house of modern architecture. His horse and carriage must be up-to-date. His table must be adorned with the delicacies of the season. Perhaps it may be necessary to give an occasional evening entertainment. Duty, love and responsibility for the future of his family demand that he lay up an emergency fund for educational and other purposes. To meet these requirements, the physician is oftentimes compelled to engage in pursuits other than that which he most honors and loves. There seems to be but one remedy to overcome this necessity and that is, legislation that will still further raise the standard of medical education. This alone will serve to bar out material, unfit and unworthy to bear the name of physician, and will open the way for the legitimate practitioner to not only earn an honest living but enable him to make himself and family comfortable after he has grown old in the service.

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CHRONIC AND NERVOUS DISEASES.

By W. H. WALLING, A. M., M. D.,
PHILADELPHIA.

We shall consider Chronic and Nervous Diseases and their treatment in a series of articles to be published from month to month in this Journal, the first to claim our attention being Locomotive Ataxia. This word is derived from *Locomotorium*, meaning the motive apparatus of the organism; the bones, muscles and tendons, and Ataxia, meaning want of order. It is also called *Tabes Dorsalis*, from *Tabes*, wasting; and *Dorsum*, the back. The signs of this disorder are as follows: First, Swaying of the body with the feet close together and eyes closed. In advanced stages the patient will fall unless supported. Second, Standing on one leg with eyes open or closed. The Ataxic finds it very difficult to do this especially with the eyes closed. Third: Sign of crossing the legs; in crossing the legs a healthy person raises one to the level of the other knee, and deposits the former upon the latter. The Ataxic raises the one leg considerably above the other knee, and in depositing the former upon the latter, makes the arc of a large circle. Fourth: Difficulty is experienced in descending stairs. Fifth: Marching at command: (a.) March! (b.) Halt! (c.) Right about face! (a.) When an Ataxic is told to walk, he manifests hesitancy or uncertainty in his efforts, first on rising to gain his equilibrium. (b.) The marching Ataxic finds great difficulty in, and is not likely to succeed in halting with precision, when commanded to do so. (c.) The Ataxic patient cannot turn about face with the same promptitude and certainty as

the normal individual.* Sixth: Abolition of the knee jerk. In the healthy individual this is elicited in the following manner: The legs are crossed, or preferably the hand of the surgeon is placed under one limb, resting firmly on the opposite knee. The limb is then left to hang limply, and the knee is struck with a rubber hammer, or the side of the hand, just below the patella, or knee-pan, when the foot will be suddenly thrown forward. In some other conditions this reflex is very much exaggerated. In Locomotive Ataxia it is nearly always absent. Seven: Disorders of vision. The pupil will respond to accommodation, but not to light. Eight: Sharp lancinating pains, very quick in onset, passing down the limbs. Ten: Feet feel as walking on a soft carpet. Eleven: The patient is unable to place the feet, as in health, and is compelled to keep his gaze and attention on them to prevent stumbling, or one foot in getting in front of the other. Twelve: In advanced stages there is a wasting or atrophy of the muscles especially of the lower limbs, with consequent inability to stand or walk even with the assistance of crutches, and the patient becomes practically helpless. There are some other symptoms, but the ones enumerated are the most prominent. These are not all present in each individual case, but some of them will be sufficiently marked to render the diagnosis easy of determination. Incontinence of urine may also be one of the complications.

All Chronic diseases are primarily due to a faulty cellular nutrition, and the nervous mechanism is deranged with consequent lessened vital resistance rendering the inroads of disease comparatively easy. On some constitutions this lowering of the vital

forces results in the disease under consideration; in others, Rheumatism, Neuralgia, Consumption, Brights Disease, or some other malady may present itself.

Locomotive Ataxia is a sclerosis, or hardening of the posterior columns of the Spinal Cord, occurring most frequently in males, and between the ages of thirty-five and fifty years of age. The direct causes are prolonged exposure to cold and wet, mental strain or worry, and Alcoholism, all tending to lowering vital resistance; and to traumatism or injury, and as many authors claim largely to Syphilis. This latter, in the writer's opinion based upon observing a larger number of cases, is not true, the other conditions above enumerated being the common cause of the disorder. There are many cases which have a specific history, but many more where such causes can be entirely eliminated; traumatism exposure, or mental strain predominating, especially the latter.

TREATMENT.

The old methods of treatment, still being carried out to a greater or less extent, consisted in the internal administration of ergot, nitrate of silver, belladonna morphine, and in "hanging," in which the patient was suspended by the neck, in order to stretch the spinal cord. The new and more successful methods, recognizing the origin of the disease to be due to a lack of proper cellular nutrition and metabolism, seeks to restore the lost equilibrium by instilling into the system those elements found, by experience, to be wanting. This is done by deep hypodermic injection of a Lymph rich in the cellular elements, prepared so as to be at once assimilated and vitalized; by the application of

electricity in the form most suitable to each individual case; by regulation of diet, exercise, hygiene etc. In this manner the vital forces are reinforced, with no shock or strain to the nervous system.

The pains of Locomotive Ataxia are often relieved by the use of electricity after all other methods have failed. In an advanced case which came under the writer's care at the Medico-Chirurgical Hospital, the application of the faradic current to the lower limbs controlled the pain and allowed of refreshing sleep, morphine taken in large doses, having utterly failed to produce any ameliorating effect. Static Electricity is also of great benefit in this condition. Taken in its early stages, cellular nutrition, together with the other treatment as above outlined, will promptly relieve the disease.

In more advanced stages, great good has been accomplished, and in some cases a complete cure attained.

This method of treating Chronic Diseases has passed the experimental stage and become a well established system in Cellular Therapy.

The next Article in this series will be upon Rheumatism and Gout.

1602 Arch Street, Philadelphia.

LITERARY NOTE.

The Principles of Sanitary Science and the Public Health, with special reference to the Causation and Prevention of Infectious Diseases is the title of a book to be published immediately by The Macmillan Company. Its author is William H. Sedgwick, Ph. D., Professor of Biology and Lecturer on Public Health and Sanitation in the Massachusetts Institute of Technology; Professor Sedgwick was formerly Biologist to the State Board of Health of Massachusetts.

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Editorial.

THE GRIEF OF THE NATION.

The shot which has brought the President of the United States to his death-bed, bows our nation in profound sorrow and deep humiliation. With hardly an exception; without regard to party, race or condition, a great wave of indignation at the assassin and sympathy for the sufferer and his beloved wife, swept through the hearts of our people with the announcement of the crime. A good man and a great man has fallen at the hand of a wretched disciple of lawlessness, and in his fall we have all fallen. That shot struck every American heart; Alas! that it should be! That the fair name of America should receive so foul a blot! That we should suffer, even foster, within our borders such vile principles in the name of liberty!

Many are tempted in the excitement of the moment to blame others for this melancholy event. Many are looking about to find the persons who can be held responsible for this outcome, to point out some course of conduct or manner of speech, and say, "This is the consequence." Little good can come from mutual blame and mutual recriminations. They who are taking the lesson most to heart, and are reflecting most wisely and planning most helpfully are those who in silence are searching themselves, sifting their own motives, judging their own actions and trying to find the right way of patriotic duty for the future. They who are most eager now to blame others are least to be depended upon for wise counsels.

But when the full extent of this crime against the American people is seen, they themselves will plead guilty and repent. They have harbored knowingly men and women who have planned such crimes and who have openly rejoiced in having carried out their plans. They have permitted anarchists to publish arguments advocating the murder of rulers, and to circulate them freely. They have allowed, without protest, meetings of the avowed enemies of society to encourage one another to such deeds.

The American nation stands awed, indignant, in the presence of a terrible crime committed against its own existence, a crime plotted to destroy not so much a man as the government which he represents. The burning hatred of the assassin was not against Mr. William McKinley as an individual, but against President McKinley, the chosen ruler of the people. It was the violent protest of anarchy against law.

The universal voice of the press,

both of America and of foreign countries, condemns the brutal attack and recognizes the superior character, both as a man and as a statesman, of President McKinley.

Probably it will be found that this irresponsible Pole was acting on his own initiative, not under the specific commands of any society of assassins, although he was undoubtedly incited to crime by the violent utterances of anarchist speakers and writers.

But this fact, if it be a fact, only adds to the difficulty of the situation. If neither a policy of rigorous repression nor one of absolute freedom of expression can do anything effectual to prevent murder, if assassination of public men thrives equally in Russia and in America, it is evident that the time has fully come for thoughtful men to consider afresh the question. How in this twentieth century can life be preserved? This is a fundamental question, but one apparently not so simple as it has been deemed. Murder as the product of covetousness and accompanied by robbery we know; murder as an act of malignancy inspired by personal revenge we know; murder by a fanatic rendered desperate by a despotism from which he foolishly expects relief by the assassination of the despot we know; but the assassination of President McKinley falls into none of these categories. So far as we can judge, this murder is the act of a man chiefly inspired by that most inexplicable and most despicable of ambitions, the desire for notoriety; the most despicable, and yet, in a democratic community, with its characteristic passion for publicity, liable to become more common in the future than in the past.

Regarding the medical aspect of the President's case very little is to be

said. All was evidently done for him that modern surgery could do, but it seemed to us all the way through that if the bulletins were correct, no physicians had any right to hold out the hope of recovery while the temperature remained above 100 and the pulse in the vicinity of 120 for nearly a week. It was only in an unwarranted prognosis that we should criticize the medical aspect of the case.

SOME OF THE SURGICAL ASPECTS OF THE ASSASSINATION OF PRESIDENT MCKINLEY.

Within the past thirty-five years, three presidents of the United States have been stricken down by the murderous weapon of an assassin.

In each instance there were several features of striking surgical interest. In all three, the resources of science and art were impotent; we may say, that their wounds were from the beginning mortal.

In the case of the illustrious Lincoln, the missile entered the skull just posterior to the right ear, about an inch from the torcular, tore widely open the lateral sinus and lodged in the brain substance. The commotion transmitted through the encephalon was so great that the anterior fossa of the base of the skull was widely fissured and the supra orbital plates shivered into fragments.

Consciousness was lost and mortal symptoms immediately supervened, death following in six hours.

In President Garfield's case, the missile entered from behind, tearing through the thick lumbar muscles and the body of the ninth dorsal vertebra, in transit wounding the spinal cord. During life the position of the bullet could not be located.

Immediately on being shot, the President fell to the ground, was soon in deep shock with signs of paralysis of both lower extremities. The President lingered nearly four months before the end came.

In this case, for several weeks after the murderous assault, there were some very good reasons for expecting an ultimate recovery. He survived the immediate danger of mortal hemorrhage, the paralysis improved, there was no evidence of perforation of the hollow viscera, he had fair digestive power, besides, he was a person of good habits, with a robust constitution. But, as time sped on, it was obvious that the unfortunate man was doomed, the effects of shock lingered, infection set in, metastatic suppuration followed, with a steady rise of temperature; increasing exhaustion and final loss of digestive power; added to this continued pain and loss of rest. The patient had made a brave fight for his life, but the odds were against him.

It was thought at that time—20 years ago—that could the missile be only located and extracted, the patient's life might have been saved.

Laparotomy at that time for penetrating wounds of the abdomen, was yet untried, and of the fluoroscope or the Roentgen Rays nothing was known. Lister was then working out his system of antiseptics, and many had adopted it, but it was only in its trial stages, and was by no means generally employed. On autopsy, after the viscera of the abdomen were removed, the bullet was found, well encysted in the pancreas. At that time, all that the resources of the healing-art could accomplish was to aid the processes of nature and alleviate symptoms.

Since that epoch, very considerable advances have been made in operative medicine, but let no one delude himself with an impression that they are of as widespread a character as some would have us believe. We have no means yet which will enable us to overcome the effects of age, nor to prevent the death of tissues, after what Cowan well describes as "the local shock to parts after a traumatism." We cannot well mend a shattered spine, nor restore tissues which have been destroyed.

The Third Assassination.

The medical aspects of the late President McKinley's case in many respects are the most extraordinary and unique on record. No doubt, but for years to come, they will occupy an important place in the annals of surgery, and serve as an object to the rising generation of practitioners.

Too much haste and too much optimism seemed to be the conspicuous features here. About four hours after eating a mid-day lunch, while standing in an erect position, the President was shot twice, at very short range, not more than one or two feet—the cartridge being 32 calibre. One ball struck the sternum and glanced, the other pierced the abdomen one inch above and to the left of the umbilicus—immediately over the hypogastrium—a highly vital area. For the moment, the President was dazed rather than shocked; he gazed for a moment on the assassin and sat down. It does not appear from the bulletins, that immediately after the assault the President showed any signs of grave constitutional disturbance, of large hemorrhage or great shock. Almost immediately he was removed in an ambulance to the Emergency Hospital, and within one hour after the shooting he

was on the operating table.

The active participators in the laparotomy consisted in one gynaecologist, a member of the medical staff of the Navy, a professor of surgery, and a visiting surgeon on the grounds. The chief surgeon of the hospital, Dr. Roswell Park, was not present when the operation began but was there soon after.

Now, why this haste till Park arrived, or until a larger number of experienced general surgeons could be called, that deliberate council could be had?

But why, may be enquired, a moment's delay when there are good grounds of suspecting the penetration of a hollow viscus?

To such we must answer that the lessons of Stimpson's statistics on "Results after interference, and non-interference in penetrating gun-shot wounds of the abdomen," the writings of Reclus, the records of the Cuban war, and those up to date in the Transvaal, have been lost, as all of these clearly demonstrate that few escape a mortal end, after laparotomy for gun-shot wounds, while a large number recover under expectant treatment.

Rarely, or perhaps, it may be said, never do we find a double perforation of the gastric walls without co-incident damage to other important organs, the liver, spleen, the pancreas, kidney or lungs; in one such case in the writer's hands, mortal hemorrhage came from the left kidney, in another the internal iliac artery was opened and a fatal secondary hemorrhage into the left pleural cavity occurred.

In the case of Mr. McKinley, it is said that one and one-half hours were consumed in the operative procedure. This seems a long time, but to one

who has ever encountered the difficulties of suturing a posterior perforation in the mobile, living stomach, it certainly implies no lack of skill, but to employ what prophylactic we may, the immediate or ultimate shocks succeeding is invariably very great. This following immediately on the shock of the assault, tries the vital powers to their utmost, and certainly enfeebles the reparative processes of the system. There is no case of recovery yet recorded after laparotomy for gun-shot wound of the stomach in one over 50 years old.

The optimistic bulletins, the sanguine expectations, the "absence of sepsis and of peritonitis," "the normal blood count," the certainty of recovery while tissue asphyxia, decomposition and sphacelus were slowly but steadily undermining life, seem indeed quite incomprehensible. In a case of this character of world-wide notoriety, the effect on the laity must certainly tend to discredit the prognosis, the opinion of physicians and the boast of the profession that medicine is approaching an exact science.

Far better for the prestige and honor of the profession had it been if the medical staff had taken a determined stand and firmly resisted the importunities of friends and the press, and stubbornly refused to commit themselves until all chances of error in prognosis were impossible.

T. H. M.

HOSPITALS AND THEIR MANAGEMENT.

Truly indeed, it has been said, we are living in a revolutionary age, in a time not only conspicuous for stupendous strides in every path of human endeavor but also in a period of the widespread growth of democracy.

One wonderful discovery follows quickly in the wake of another. Maconi's wireless telegraphy is no longer a speculation but an assured fact; the names of things bear a new significance and a different interpretation; the "Kingdom" or "Empire" is now practically a meaningless term. President McKinley wielded more autocratic power, than Edward, of England, or his nephew, William of Germany. The greatest inventions of the age are threatened with early extinction, by newer devices of far greater utility.

Even the sacred precincts of home itself, are being encroached on by the revolutionary tide, as the hotel and the modern, mammoth apartment-house bear testimony to. Ease and comfort are there secured at greatly reduced expense.

The early future is bound to exhibit an enormous increase in the growth of all kinds of hospitals, public, special and private. People will rush from home to hospital on the same pretext that they do from their private dwellings for the thousand-roomed apartments, for greater comforts and lessened expenses.

A notable illustration of this has recently occurred in New York, where the honorable Theodore Roosevelt, the distinguished President of the United States, sent his two young children from their home to be operated on in a public hospital.

A wealthy public official of that city was recently asked, "why he sent his father with a broken leg, to a hospital?" He answered "because, it was the best and least expensive place."

This brings us to the question of the management of hospitals. Shall it be by laymen, by lay people, or by physicians?

An entire issue of the *Practitioner* is occupied with the question, and the editor, Dr. Malcolm Morris, summed up the situation, with the conclusion, that the dominant control should be in the doctors' hands.

In America this question is largely adjusting itself, as all the hospitals attached to our post-graduate schools are owned by the faculties.

And a large number of practitioners own and control private hospitals commonly designated "sanatoria."

Moreover we have hospitals on a large scale under the supreme control of religious communities, as the Nuns, the Deaconesses; and several smaller, by trained nurses.

The public hospital and dispensary, those which are partly charitable and are under municipal control—have seen their best days as institutions for medical instruction. In this respect, history is certainly repeating itself, for in the near future, we will soon have the English system in full swing among us. There, none, or at least, but few apply to the public hospitals, except the very poor and the waifs of society, as the great mass of the invalided are provided for by private corporations, independent of the rates.

The large draft on the great number of the sick, and injured in New York, by private hospitals has so depleted the wards of old Charity, that it has but an indifferent medical attendance and is used rather, now, as an almshouse; and famous old Bellevue with its territory annually growing narrower and narrower, by its encroaching neighbors, is so denuded that its surgical service in no manner compares with what it was 25 years ago. In fact, this institution has become little better than the

dumping ground for all the chronics and incurables of all the other hospitals of New York.

It has now been amply demonstrated, that the great mass of people when ill, prefer the private hospital, and that these by the fees from patients, with a moderate collateral, secured by entertainments and collections can meet all expenses, and have a surplus besides.

The question which has agitated the public mind in connection with city hospitals has been, whether they are better managed by lay people or by physicians.

Very much can be said on both sides, but events have proven as far as Bellevue Hospital is concerned, that in its history of now nearly 50 years, no superintendent in energy capacity and executive ability ever surpassed its present incumbent, Dr. George Taylor Stewart, who first distinguished himself as the organizer and manager, chief of staff and superintendent of the Metropolitan Hospital on Blackwells Island.

In the smaller hospitals of New York a compromise has been reached with the most gratifying results, too, let it be said; *i. e.* the heads are neither physicians nor lay men, but "supervising nurses"—females.

When this new *regime* was instituted there were many who doubted its feasibility or success, or who believed in the possibility of effective management by "petticoat government." But results have set aside all doubts, and events have proven that with the supreme control of these institutions in the hands of the ladies, their management was never more economical, effective and satisfactory. If we read correctly the signs of the times, it is highly probable, that in

the near future, the trained nurses will not be content with "homes," but will launch out in guilds, with numerous hospitals under their own control, their own property, the only bar in the way being prospective marriage.

Hospitals have drifted far off from their primitive purposes, when they were religious institutions for the poor way-farer and the homeless, as they are now the abode of the thrifty and rich, as well as the less favored members of the community. The conditions under which we live call for a large expansion of them, and their functions properly administered, and like many other semi-luxuries of our times, supply a need, and make life all the more worth living.

THE State of Tennessee has a law, making it a criminal offense, punishable by fine and imprisonment, to substitute any drug in lieu of that prescribed by the physician. This, in our opinion, is the best and the only sure method of preventing the crime of substitution.

A PSYCHO-PHYSICAL LABORATORY.

We have been requested to insert the following resolution:

Resolved, That we are in favor of the establishment of a Psycho-Physical Laboratory in the Department of the Interior at Washington for the practical application of physiological psychology to sociological and abnormal or pathological data, especially as found in institutions for the criminal, pauper and defective classes and in hospitals and also as may be observed in schools and other institutions.

This proposition has been endorsed by the American Medical and a number of State Associations, and if established it will doubtless be of great advantage to the profession as well as to the public.

BOOK REVIEW

JOHN L. STODDARD'S LECTURES.

Illustrated, complete in ten volumes. Vol. VIII Balch Bros. Co., Boston, publishers, 1899. Price, \$22 to \$36 per set.

The subjects of this volume are Florence, Naples and Rome.

In the first of these subjects, the lecturer describes the wonderful art sculpturing of Michael Angelo and others; the public buildings, notably the cathedral; the monks of La Certosa and an account of Galileo. He also mentions the great tragedian Tommaso Salvini accompanied by an illustration of his tomb.

Naples is well described when the author says: "The bay of Naples holds within its curving arms the history and legends of two thousand years. Few spots on earth awaken such absorbing interest; not one surpasses it in beauty." Of course the greatest interest lies in the restoration of Pompeii and the volcano of Vesuvius. The illustration of the ruins of Pompeii are worth the price of the whole ten volumes of these lectures. Of Rome there is the mass of history which we all know from the days of Romulus and Remus to the present time. From Julius Cæsar to the inmates of the Vatican which space forbids us to describe more fully.

THE PRACTICE AND APPLIED THERAPEUTICS OF OSTEOPATHY.

(Second Revised Edition,) by Charles Hazzard, Ph.B., D. O., 444 pages, Cloth. Kirksville, Mo.

This work is doubtless well written

from an Osteopathic standpoint, and will commend itself to practitioners of that so-called school.

The great objection to this method of massage, for massage it is, is that it seeks to elevate itself into a separate and exclusive system of treating all the diseases that flesh is heir to, not excepting appendicitis, chicken pox, croup, diphtheria, scarlet fever, erysipelas, goitre, grippe, typhoid fever, small pox and gonorrhea, not to mention lesser ills.

There is more or less of good in all systems of healing, and the graduate in medicine is at liberty to avail himself of that good wherever found. We fully appreciate the benefits to be derived from the judicious and intelligent use of massage, electrotherapy, hydrotherapy, suggestion, and all of those means for the treatment of diseased conditions, other than drug-giving, which may be grouped under the significant title of "Physiologic Therapeutics," but they should be given under the supervision of the educated and skilful practitioner of medicine, and to this end every practitioner should sufficiently acquaint himself with the adjuncts he wishes to make use of to know whether or not they are being properly and judiciously administered, when ordered.

Osteopathic massage is of undoubted benefit in suitable cases, provided that the treatments are not too prolonged or too severe. In order to guard against the latter, they should always be given under the direction of the attending physician, as before stated. Under such restrictions this form of massage may be made a most useful agent in medical practice. As a separate and exclusive system, it is to be condemned. W. H. W.

THE NEW ANIMAL CELLULAR THERAPY.

By Joseph R. Hawley, M. D. 104 pages. Cloth, \$1.00. Published by the Clinic Publishing Co., Chicago, Ill.

This work though brief, is comprehensive, giving the origin, nature, action and uses of the Lymph which bears the author's name, with new contributions to medicine.

It also gives the formula and method of preparation of the Lymph, followed by a description of its Physiologic and Therapeutic effects, together with antagonists, incompatibles and synergists.

The use of Animal Extracts has become an established method of practice, brilliant results having been reported in some acute as well as in chronic diseases.

Cellular Therapy is a most decided advance in medicine, and seems to be destined to take front rank in the treatment of most chronic disorders.

The managing editor of this journal has personally investigated and tested the method of treatment described in this work, and fully indorses it.

LITERARY NOTE.

The Principles of Sanitary Science and the Public Health, with special reference to the Causation and Prevention of Infectious Diseases is the title of a book to be published immediately by The Macmillan Company. Its author is William T. Sedgwick, Ph.D., Professor of Biology and Lecturer on Public Health and Sanitation in the Massachusetts Institute of Technology. Professor Sedgwick was formerly Biologist to the State Board of Health of Massachusetts.

OPHTHALMOLOGY

In charge of J. A. TENNEY, M.D., Boston.

Dr. Albert B. Hale, (*Oph. Record*) thinks the general health has much to do with the formation of chalazion, some diseases causing thickened secretion; and that rubbing the lid, perhaps aided by germ infection, starts the inflammation that leads to chalazion. Excision and curetting are the only thorough methods of treatment.

Dr. Carl Weiland, (*Oph. Record*) says the cornea has a dioptric value which is expressed by a convex lens whose power equals the reciprocal of the anterior focal distance, the lens being placed at the center of the cornea. Such a lens of 43.20 D. for a cornea of 7.8 mm radius has the same dioptric value as does the cornea. This article was written in reply to one of Dr. Suter in a former issue of *The Record*, in which he stated that the cornea has no dioptric value.

Dr. John E. Weeks, (*Met. Record*) recommends the use of an oval wafer for bifocal spectacles measuring ten mm. in its vertical, and fifteen mm. in its horizontal diameter, giving a field of about seven inches in the horizontal, and five inches in the vertical meridian. By placing the distance two mm. above the inferior edge of the distance lens, it will enable the wearer to descend stairs without trouble. He places the plaster a little to the inner side of the center of the larger lens.

Dr. Allen T. Haight, (*Chicago Clinic*) uses collodion for exophthalmic goitre. It is painted on the thyroid gland, and its contraction lessens the blood supply, decreasing the thyroid

secretion. With this decrease he finds a corresponding decrease in the toxemia and other symptoms of the disease. At the same time, he gives internally ten grains of potassium iodine in one dram of syrup of hydriodic acid four times a day. He uses fresh collodion so as to get the maximum contraction at each application, and uses from 20 to 30 pounds of air pressure. The patient's head should be in an easy position, with relaxed muscles. The pressure should be kept constant by repeated applications at intervals of from two to five days.

Dr. Howard F. Hansell, (*Am. Med.*) in a paper read before the Am. Ophthalmological Society describes a case of ankylostomiasis with eye complications. The intestinal parasite *Ankylostome Duodenalis* is comparatively unknown in North America, but it causes an exceedingly common and fatal disease in Egypt, Asia, India and Southern Europe. This patient, an Italian boy, came from Marsino in March, 1901. Dr. Hansell found the lens and vitreous clear in both eyes, but the discs were edematous, their outlines being lost, and the retinas were infiltrated for some distance around the discs. There were several retinal hemorrhages, and the vessels appeared as nearly transparent lines, seeming to be filled with water instead of blood. The blood currents in the veins could be distinctly seen.

The worm is about one cm. long and one mm. thick. It clings to the intestinal wall by means of hooks with great tenacity, particularly in the duodenum. It is best expelled by thymol, and filix mas given after 24 hours' fasting. It produces a condition of profound anemia.

Physiologic Therapeutics.

IN CHARGE OF

Dr. W. H. WALLING, PHILA.

REPORTS OF CASES TREATED WITH THE ROBERTS-HAWLEY LYMPH COMPOUND.

(*From Bulletins of the Institute.*)

Posterior Spinal Sclerosis (Locomotive Ataxia). Probably of traumatic origin. Previously treated with chloride of gold and sodium, with negative results. Dr. W. T. Jones, of Columbia, Ohio, reports a very interesting case and results. Cord lesion (tabes), probably due to a gunshot wound of dorsal vertebræ. Transverse processes of third and fourth dorsal vertebræ showed evidences of former fracture. Inco-ordination very severe. Choked disc, A-R. pupil, anæsthesia of both legs. Atrophy of muscles marked, especially of the internal and external vasti muscles. A middle-aged male. Treatment: First used chloride of gold and sodium nearly four months with negative results, except slightly bettered nutrition. Later begin use of Lymph Compound alone in 12 minim doses. Only used one bottle of Lymph. No adjuvant used.

Results: After three weeks of Lymph Compound, sensation restored in both legs. Pupil reacted almost normally. Gait markedly improved. In fact, patient showed marked improvement in every symptom. The bottle of Lymph Compound was finished some time ago, and patient has not lost any of his gain.

The doctor has just resumed the Lymph in this case, and will treat several months longer.

Locomotive Ataxia.—Extremely severe. Dr. R. B. Leach, of St. Paul, Minn., reports very decided improvement in an advanced case of tabes. Patient, a male (about 45), was practically helpless. After about six weeks of treatment with Lymph Compound, minims 8, twice a day, patient is so much improved that he is able to walk to his room and undress in the dark. Anæsthesia rapidly disappearing. Improvement very rapid.

Senility, with Extreme Nerve Exhaustion.—Dr. W. R. Kennard, of Rockdale, Texas, reports a very marked and practically complete removal of the functional and textural effects of pre-senility. Patient was extremely debilitated. Scarcely able to sign his name. Treated twice a day for thirty-five days and once a day for thirty days.

Results: Almost a complete regeneration. All the usual changes produced by the Lymph Compound were obtained in this case. Face brighter, vision about normal, strength and agility greatly increased, etc.

Sciatica (Left). Very severe, of ten years standing. Also the most severe type of insomnia. Dr. C. L. Souder, of Lafayette, Ind., reports as follows: A minister, 31 years of age. For ten years suffered from neuritis of left sciatic nerve. Pain paroxysmal and intense. Nearly constant insomnia for four years. Iritis, with severe pain and photophobia; unable to use his eyes for reading. Confined to bed four months. Leg very weak. Severe melancholia. Treated with six to seven minim doses ten weeks.

Results: Sleeps normally. Practically free from pain in eye or leg. Able to walk several miles without fatigue. No melancholia. Is now able

to use his eyes. In view of duration and severity of disease, a very brilliant result.

Insanity.—A very interesting case. A severe melancholia. Case pronounced "hopeless" by prominent alienists. Widow, aged 57. In November, 1900, had a severe attack of lobar pneumonia, with protected high temperature and stupor. During termination by lysis there was muttering delirium for three weeks, followed by partial return of memory and consciousness, but there ensued delusions of persecution, poverty, suspicion, etc., with loss of pride, shame, etc. Calls of nature obeyed. Obstinate constipation, tremor of tongue, eyes and facial muscles. Patient was very poorly nourished.

Above conditions continued until May 1, 1901. I sent a leading alienist to see the patient. He reported severe melancholia with arterial degeneration, so advanced as to preclude recovery in all probability. May 8th I placed her in St. Francis Hospital and began to use the Lymph. First used large doses, but soon had to lower dose to ten minims. No adjuvant except hemaboloids. Treated until June 22d.

Results: A thoroughly complete cure, with the most marked and rapid gain in nutrition that I ever witnessed. She gained five pounds a week. Yesterday her brother came to see me and stated that she was still growing stronger every day, and was happy, bright and absolutely normal mentally and more than normal physically.

Dr. Hamilton Forlin, of Chicago, reports a case of severe chronic articular rheumatism, with mitral insufficiency, in a female aged 60. Patient

had been unable to walk for several months. Disease of long standing. Bony overgrowths and ankylosis of knee joints and other joints. Extremely severe nerve exhaustion. Had taken morphine for several months. Severe insomnia. Severe pain in various joints. After two months' treatment, nerve exhaustion absolutely cured, able to walk, sleeps normally, morphine habit cured, joints almost normal in size and mobility, no pain, heart perfectly compensated, and marked general improvement. Also a case (male, 60 years old) of angina pectoris, with arterial sclerosis and myocarditis. Treated nearly five weeks, and greatly improved in every way. Patient has only a very slight dyspnea after exertion, and is free from anginoid pains. Dr. F. also reports very marked improvements in cases of chronic parenchymatous nephritis, locomotor ataxia, gastrectasis, chronic cystitis, ataxic paraplegia, chronic gastritis, neurasthenia and chronic articular and muscular rheumatism.

In these bulletins we simply publish a few of the very recent interesting results. Our records show that unusually complete results are being obtained in many diseases of the pelvic viscera in females, especially metritis, endometritis, ovaritis, cystitis, and general pelvic congestion. The same is true of bone and joint tuberculosis, cardiac degeneration, and many functional diseases of the nervous system, especially epilepsy, nerve exhaustion, hysteria and certain mental diseases. Average results in other diseases continue to be equally (or more) favorable than those previously published.

THE MEDICAL TIMES \$1 per year.

Surgery and Surgical Pathology.

IN CHARGE OF

Dr. T. H. MANLEY, NEW YORK.

RADIOGRAPHY IN PULMONARY SURGERY.

BY M. TUFFIER.

At the International Congress of Moscow, in 1897, in a report which I was charged with, my conclusions on the surgery of the lung, were that "precision in diagnosis was more important than the special procedure in operation."

Unfortunately our methods of investigation are yet far from perfect. Heretofore our analysis of symptoms was largely based on auscultation and percussion. But real progress has been made since radioscopy was added.

In a number of publications of cases, it will be noted, through the absence of definite localization, numerous disasters have followed operation.

I.

In the first place, diagnosis may err in localizing the affected organ, or of mistaking the liver instead of the lung, the pleura or the kidney.

Seven such cases have been noted by myself. Andrews diagnosticated an abscess of the liver but found it to be one of the lung, close to the spinal column.

In 1898 I operated on a young Spanish physician who had been examined by several noted physicians, who diagnosticated hydatids of the liver, but on section the tumor was found occupying the lower lobe of right lung.

II.

An error is frequently committed in determining the seat of the lesion in the lung; in about 30 per cent. the mistake is made here, in fixing the

lesion too low, or too superficial. In one case of hydatids the physicians had located the mass in the superior and middle lobes, but on operation a cyst as large as the foetal head was found in the inferior lobe.

At Du Bois, I operated on a patient with pulmonary gangrene; the centre of the lesion was located under the eighth intercostal space, but I found the base in the seventh space, this entailing an extensive and needless mutilation.

In another case the physical signs pointed to the seventh intercostal space, but exploration exposed a large abscess in the fifth space.

In 1895, I operated on a young woman with pulmonary gangrene, in which two physicians made a similar error.

These errors are very common. Similar errors abound in medical literature. Berger thought he definitely located an abscess. He passed a bistoury in four centimetres and found nothing. The patient died two days later, when on autopsy it was found that the blade had passed between two pus collections, each independent of the other.

Chaput located a mass at the sixth space, but exploration was negative, while at the sixth space a large pleural abscess was exposed.

Hofmokl had to make two interventions before the mass was found. In Voght's and Moster's case "the minimum of sign was above but the maximum of lesion below."

Orhler penetrated five centimetres with the thermo-cautery and found nothing. Two days later the abscess opened through the operative wound. Leech opened a case through the third space and made six deep punctures but came on no pus, but a free incision

through the second space gave vent to a large collection of foul pus.

Quinicks over the site of flatness found nothing. Three days later spontaneous evacuation followed through the incision made.

The determination of the *depth* of the pus collection is likewise very uncertain.

Sometimes cavities apparently very superficial are very deeply lodged.

These lesions are particularly deep seated in pulmonary-gangrene, and we may sometimes suspect a sacculated pleurisy, while the real trouble is an abscess of the lung. Letulle records such an example, which on autopsy revealed a vast abscess of the lung. Malbot had a similar case of supposed encysted pleurisy which was found to be an abscess of the pulmonary parenchyma.

The volume of the cavity as well as the sacculations cannot be ascertained conclusively by any means known to art. Heretofore our chief resources of diagnosis have been by auscultation and exploratory puncture.

Auscultation as we have seen is sometimes very deceptive and needle-puncture is not decisive nor infallible.

If pus has been expectorated, the needle enters an empty cavity, and if it is inspissated it will not enter the needle's lumen.

RADIOGRAPHY.

If errors attend stethoscopy and the exploratory-puncture in surgical affections of the lung, can they be entirely obviated or rendered less numerous by the aid of radiography?

My own experience in this class is limited to 25 cases, though only in a small number was radiography employed. In five cases it proved an invaluable resource, pointing with

singular distinctness to the seat of lesion.

In three cases the results were negative. One case was hydatids of the lung in which the hooklets were found in the expectoration. Another was one of gangrenous abscess of the lung in a child of six years. The third was one of interlobular pleurisy with purulent effusion.

In five cases located by stethoscopy four were confirmed by the radiograph. This means will not indicate the character of the lesion nor the number of cavities.

We must then regard the Roentgen Ray as a confirmatory aid, but in hydatids of no value whatever.—*Revue de Chirurgie, Aoret, 1901.*

NOTE.—The definite diagnosis of intra-thoracic suppuration, gangrene or neoplasm is certainly often attended with great difficulty. In pulmonary diseases calling for the aid of surgery, in adults, the difficulties are often of a most redoubtable character.

Here we are frequently forced to call into requisition all the aids of clinical medicine as well as the resources of physical diagnosis, hence we must avail ourselves of all accessory means.

The difficulty is often great, when the pulmonary lesion is located in the lower segment of the right pleural-cavity over the hepatic areas.

Here the dense tissue of the liver may cast an impervious shadow over an abscess in the inferior lobe of the lung. The liver may mount even above the nipple-line and a puncture anywhere up to the fourth intercostal space, may give issue to pus from an organ subdiaphragmatic in situation. Tuffier notes the obscuring effect of cardiac interposition on the left side. Pulmonary radiography, as an aid

to pulmonary surgery, is of unquestionable value, though as we see in a considerable percentage of cases, it serves no purpose whatever, and all the former obstacles remain.

T. H. M.

DIAGNOSIS BETWEEN APPENDICITIS AND TYPHOID FEVER.

RICHARDSON (*Providence Medical Journal*, April, 1901) points out that in rare instances an appendicitis in which the abdominal symptoms are mild simulates a typhoid in which they are pronounced.

The symptoms which should put the surgeon on his guard against typhoid are, in the order of their importance, pain without rigidity; pain and tenderness without rigidity; pain and tenderness without rigidity and without tumor; a history of malaise, headaches, and slight fever preceding the pain even if of only twenty-four hours' duration; an initial and sustained temperature of 103° or more preceding the pain; increased area of splenic dullness when other symptoms suggest equally appendicitis and typhoid fever; rose spots; normal leucocyte count.

Sometimes the diagnosis cannot be made.

It will be almost always safe to wait, and the surgeon should wait when from the absence of rigidity and tumor, typhoid is suspected, especially if the patient is near at hand. Twenty-four hours will usually be time enough to establish the diagnosis of appendicitis or to rule it out. Many days may be necessary to recognize positively typhoid fever.

The dangers of exploration in the initial days of typhoid are probably slight. The wound pursues an aseptic course. In one case at least, if it ex-

isted, the disease was aborted by the removal of the mesenteric glands and the appendix.

The most experienced and careful diagnostician may be misled by the prominence of abdominal symptoms in typhoid into advising operation. Chagrin at such a mistake should not be felt if the examination has been careful and thorough with the possibilities of typhoid being kept well in mind.

When the abdomen has been opened the appendix should be removed. If mesenteric glands easy of access are present they should be removed.

Even with the abdomen opened, there is no positive way of recognizing typhoid in the first days. When glands are removed which present the features of typhoidal glands, a rapid convalescence of the patient throws some doubt upon the diagnosis, especially when no typhoid bacilli are found in the glands, and the cultures from blood serum are sterile.

THE OPERATIVE TREATMENT OF TRAUMATIC AND IRREDUCI- BLE LUXATION OF THE HIP-JOINT.

HOFLINGER (*Centralblatt fur Chirurgie*, No. 11, 1901), on the basis of three cases of this nature operated on by Kaufmann, has made a study of the subject. He has collected thirty-seven cases from the literature. In twenty-four cases arthrotomy was practiced; two of these were, however, subsequently resected, one because of unsatisfactory functional results and the other because the head of the bone necrosed. In sixteen cases primary resection was practiced. As to the comparison of the results, arthrotomy with replacement of the bone is to be preferred to resection, especially in young people. It is noteworthy that

after arthrotomy fifty per cent of the cases suppurred, and that after resection almost an equal proportion.

TREATMENT OF ULCERS OF THE FOOT BY PROTEID BACTERIA.

HONL and BUKOVSKY (*Centralblatt fur Chirurgie*, No. 11, 1901), treat ulcers of the foot and leg by compresses moistened in a plasma derived from the growing bacillus pyocyaneus; this they call pyocyaneus protein, and with it they treated one hundred ulcers.

The compresses were reapplied two or three times daily. There was no effect upon the general system, nor was irritation noticed in the skin surrounding the ulcer. Within twenty-four hours the secretion was diminished. In one to ten days, the ulcer presented a healthy granular appearance, after which the skinning process began, and was progressive and uninterrupted until complete recovery.

The authors hold that the toxin of the bacillus pyocyaneus can cure every ulcer, no matter what its condition. They note that in Janovsky's clinic a two-months' treatment in each of five years cured not over sixty per cent at the best, whilst by the toxin therapy, treatment for a considerably less length of time cured ninety per cent. They do not explain why the remaining ten per cent did not get well.

A NEW GASTROENTEROSTOMY.

MUGNAI (*Centralblatt fur Chirurgie*, No. 14, 1901) has devised a method by which the hollow viscera are not opened during operation, but, after having been united by suture, subsequently communicate by a process of necrosis. At first the serous surface

of the intestines and stomach are united by continuous suture running for a distance of about three inches. From a half to three-quarters of an inch from this line of suture, parallel to it, the serosa and muscular coats of first the stomach and then the intestine are scorched for about an inch to an inch and three quarters. By means of a strong silk suture, these cauterized surfaces are bound closely together; the thread is passed entirely through the stomach wall at one extremity of the scorched area, and is brought out at the other extremity. It is made to include the scorched area of the intestinal wall in the same way. It is then tied tightly, this constriction insuring the necrosis of the already seriously devitalized mucus membrane. The line of serous suture at first applied is then continued completely around the burned area. Mugnai has operated upon three cases by this method with admirable results.

TUMOR OF THE SPINAL CORD TREATED BY OPERATION.

KRAUSE (*Medical Press*, March 27, 1901) notes that since 1887 thirty-one operations for the treatment of tumors of the spinal cord have been performed. Thirteen of these proved fatal. Up to 1896, ten died out of twenty operated on, but since then only three died out of eleven operations. The improvement is mostly due to better diagnosis.

Krause had a case, a woman sixty-six years old. She first noticed weakness in her legs five years after an injury. For four weeks she had considerable pain after a fall, and three months later pain began in the right toes and knee. Soon after ab-

normal sensations were felt in the right leg. She was treated for a long time for sciatica. In 1897 there was girdle pain, starting from the sacrum and passing forward over the hips. Soon after slight symptoms of weakness appeared in the leg. This weakness gradually increased, but about three years later she could still walk for about an hour at a time. A few months later she took to her bed. Leitzmann and Böttger diagnosed a tumor of the spinal cord.

There had been no pain in the back since the fall, nor whilst in the hospital, nor on percussion or movement. Tuberculosis and syphilis could be excluded. Motility normal everywhere except in the legs. The right lower extremity was almost completely paralyzed as far as the iliopsoas, with the exception of a small segment in the gastrocnemius. The left leg was normal. There was no atrophy. The reflexes were exaggerated. There was anæsthesia of the non-paralyzed leg, and lowered sensation to temperature. Electrical stimulation showed no signs of degeneration. The half sided paralysis was decisive for the diagnosis. There was further the chronic course and the circumstance that the disease had not attacked the bones.

About three months after the case had been correctly diagnosed an incision was made, and the muscles separated quickly from the bone. The eighth arch was then chiseled through, without finding anything. On doing this to the seventh, however, the tumor was found. It could be felt through the dura as a hard mass, and later on showed itself under the microscope to be a psammoma. The tumor was about the size of a hazel nut, and was easily shelled out. The cord was completely pushed to

one side, and when the tumor was removed a depression was left that the tip of the finger could be put into. The wound was closed by suture and drained. The operation lasted forty-four minutes. The result was comparatively favorable. The defect in the bony column was $10\frac{1}{2}$ centimeters, and $11\frac{1}{2}$ when the patient bent forward. It was quite movable. The patient now experienced no trouble. Considering the nature of the tumor, the prognosis was favorable, both as regarded life and recovery of function.

MEDICINE.

In Charge of Dr. A. D. Davidow, Troy, N. Y.

KOCH AND TUBERCULOSIS.

Prof. Koch has been heard from again, and the echo has reverberated throughout the world. At the British Congress of Tuberculosis he read a paper in which he takes the position that there is a radical and important difference between human and bovine tuberculosis.

He had demonstrated, so he thought that cattle could not be infected with human tuberculosis; but that human beings were not liable to infection from bovine tuberculosis was, he said, harder to prove, because of the difficulty of experimenting upon human subjects. He related certain post-mortem conditions found to sustain this opinion, and stated that personally he was satisfied such transmission of the disease does not occur.

Many experienced pathologists do not agree with Koch, however, and we believe it to be dangerous doctrine to disseminate through the lay press, at any rate before the deductions have been sufficiently verified. Speak-

ing of Koch's theories, Dr. S. B. Edwards says (*Virginia Med. Semi-Monthly*): "We trust that Dr. Koch is correct in his supposition, for the matter of prophylaxis would be considerably simplified. We feel, however, there is something incongruous about his statement, for, if the diseases are radically different in man and beast—in other words, if they are different diseases—then the germs causing the diseases must be different. Reasoning thus, if the one which is thought to cause tuberculosis in man is tubercular, what has heretofore been called tuberculosis in cattle is not tuberculosis, but is, instead, some other disease, produced by some other but similar appearing bacterium. Otherwise this specific pathogenic germ would not conform to one of the fundamental requirements of Koch's law—viz., 'When introduced into healthy animals it must produce the disease.' And right here it is to be remembered that neither man nor cow is considered immune. Why uncooked tubercular meat when eaten by a person cannot cause—under proper conditions, suitable soil, etc.—bowel or other form of tuberculosis, will be hard to explain. So firmly rooted is the idea that such was the case, that some proof will be necessary before practitioners will accept as true a theory which teaches that tuberculous meat and dairy products generally are not one of the causes of this dread infection.

Dr. Koch, like most physicians at the present day, thinks the chief source of danger is from the sputum of consumptives, and, as a precautionary measure, he advises the passage of certain prohibitive laws concerning the expectoration of consumptives, besides making obligatory

notification to health officers, that they may disinfect and take other proper steps to eradicate the disease wherever existing.

Heredity as an etiological factor, as has been taught in recent years, he classes as unimportant."—*The Medical Herald*.

SUPRARENAL EXTRACT AS AN ECBOLIC AND CARDIAC STIMU- LANT.

The outcome of some researches carried on at Edinburgh into the physiological action of the suprarenal gland is to show that it excites uterine contraction in a very marked degree whether the uterus be gravid or not, its action being much more powerful than the agents generally employed with that object in view. As the active principle of the gland is not decomposed by the gastric juice it can be administered by the mouth; nevertheless, when resorted to for the purpose of checking post-partum hemorrhage, it is recommended to inject it directly into the uterine cavity, so that it may exert its constricting effect on the uterine arterioles in addition to setting up muscular contraction. For this purpose an ounce of dried gland substance is infused in a pint of water, and to this liquid, after boiling, are added two ounces of chloride of calcium. This is injected as hot as can be borne. We have already referred to the remarkable tonic action of the gland on the heart. The intravenous injection of one sixty or seventy grains of the gland is said to restore the circulation after an operation and promptly to avert impending cardiac failure. When dried and put up in hermetically sealed glass capsules the gland substance

preserves its properties indefinitely, and it is evident that we have in this gland an addition to the therapeutical armamentarium of considerable value.

—*Med. Press and Circular*.

THE INTRAVENOUS INJECTION OF COLLARGOLUM.

In his paper on "Silver as an External and Internal Antiseptic in Gynæcology," published in *Die medicinische Woche*, Berlin, May 28th and June 3d, 1891, Professor B. Crede pays especial attention to the administration of the soluble metallic silver by the intravenous method. Whether introduced in this manner or through the skin, experimentation has shown that the effects of the soluble silver are evident for two or three days. They are weaker even upon the second day. The indications for renewed silver medication will depend, of course, upon the intensity, extent, and severity of the infection for which it is employed. The chief point is to employ the treatment early enough and energetically enough. In one of the largest of the German Woman's Hospitals there is a standing order that whenever the temperature of any obstetrical or gynæcological patient exceeds 38.5° C. (101.3°F.), 2 to 3 grams (30 to 45 grains) of the ointment, according to the size of the patient, is to be inuncted. Precision of indication therefore is entirely unnecessary, since the procedure can do no harm, whereas a beginning sepsis of any kind may possibly be cut short. Mastitis, dermic or pelvic abscess, peritonitis, urethritis, cystitis, putrid bronchitis, an infectious pneumonia, a septicæmia, or a pyæmia, can only be benefited; and the sole question is whether the in-

unction method or the more rapid one of intravenous injection is to be employed. The deciding factors will be the state of the patient's skin and her general condition, the organs apparently about to be affected, etc. In many cases the threatening nature of the symptoms and the special conditions will be such as to make intravenous injection the method of election.

Professor Crede gives the following detailed directions for the intravenous administration of the Colloidal Silver:

"The intravenous injection of Colargolum, which has given me astonishingly good results, is most suitable for severe general sepsis, pyæmia, large abscesses, foudroyant gangrene, intractable articular rheumatism, and similar serious affections. It may be accomplished in simple manner by any physician with efficient lay help. Any convenient and prominent vein can be employed; the most suitable is the left cephalic, but varicose veins of the extremity, if present, can be used. The patient being recumbent, the arm is permitted to hang down for a minute, and a bandage or ligature is firmly tied about the upper arm. The arm is then allowed to hang down for one or two minutes more. By this method, which is a little different from that usually employed, I believe that the small veins are more tensely filled. The skin over the vein is then washed, rubbed down with ether, and a perforated needle at least the size of a thick pin is introduced into the vein. If the point is in the lumen of the vein, blood will flow out of it; if this does not occur, the needle must be reintroduced until it does. The syringe is then attached, the ligature on the arm removed, and the

solution of Colloidal Silver injected slowly and with frequent pauses. If there should be much resistance, it is probably because the point of the needle has been projected into the opposite wall of the vein; it should then be gently retracted a little.

"It is desirable to administer not less than 0.05 gram ($\frac{1}{4}$ grain) of Colargolum to an adult; and for various reasons a solution more concentrated than 1:100 should not be employed. This would necessitate refilling an ordinary hypodermic syringe not less than five times; which would be troublesome, and involve the risk of displacing the needle from the interior of the vein. I therefore employ a syringe holding 10 grams ($2\frac{1}{2}$ drams).

"This simple method is applicable in all cases where the veins of the patient can be rendered turgid with blood. But this is often impossible with very sick patients, or with very fat individuals. In such the vein selected must be exposed and dissected out with the knife. Two catgut ligatures are then placed around the vein at a distance of 1.5 centimeters (3-5 inch) from one another, a longitudinal incision made into the vessel with the scissors, and a glass or silver canula with buttons on its ends introduced. The ligatures are then fastened with a simple knot on the proximal side of each button. By means of a short rubber tube, or directly, a syringe holding about 20 grams (5 drams) is attached to the canula, and aspiration effected, so as to draw into the syringe any air that may be in the canula or tubing. Then 10 to 20 grams (2 1-2 to 5 drams) of a 0.5 per cent. solution, which I prefer for this kind of injection, is slowly forced into the vein. Two or three sutures suffice to close the wound; in the sim-

pler method first described a small piece of plaster is all that is required.

"I have never observed any unpleasant effects from these injections, nor do the patients complain of them. My usual dosage is 5 to 10 grams (1 1-4 to 2 1-2 drams) of the stronger, and 10 to 20 grams (2 1-2 to 5 drams) of the weaker solution. They need not be filtered immediately before the injection; they should be allowed to stand quietly for a few minutes before they are used, so that any undissolved or reprecipitated silver may settle to the bottom of the vessel; and the injection fluid is taken from the upper half of its contents.

"The Collargolum solution, though not very stable, can be kept for many months in well closed vessels. To ascertain whether it is in fit condition for use or not, a little may be poured into a vessel containing distilled water. The former is the case if the water remains clear, and becomes brownish to olive green in color. If it becomes silver grey and cloudy the solution is unfit for use.

"Not unfrequently a chilly feeling or a distinct chill with fever occurs two to four hours after the injection; but it soon passes off, and leaves not the slightest ill effect. The favorable effect upon the disease itself is much more intense, and appears much more quickly, than when the Collargolum is employed by inunction; naturally, the injection has to be repeated once or oftener on the following or subsequent days, in accordance with the nature of the case."

ARTIFICIAL DIGESTIVES. WHAT IS WANTED.

The exact physical and chemical conditions under which pepsin digestion can take place within the body,

are present only during perfect bodily health, when, of course, an artificial aid is not needed. Disease deranges these conditions (*e. g.*, too much or too little of hydrochloric acid, or of liquids, or of neutral salts, etc., etc., will be present), and consequently the natural digestive ferments, though perhaps still present, fail to perform their appointed task, and maldigestion ensues. It is obviously illogical, therefore, to expect that a further supply of animal pepsin, which is to be subjected to these same deranged conditions, can remedy the evil. Pancreatin, acting in an alkaline medium only, and being destroyed by the normal acidity of the stomach, is seldom of value in either stomach or intestines. What is wanted to produce artificial digestion in most cases, then, is either a restoration of the normal conditions under which the animal ferments do their work (a task difficult to achieve), or a digestive agent that acts regardless of all these conditions, on all classes of food products, throughout the entire digestive tract. Such an agent has been found in caroid.

SOME SPECIAL FEATURES OF THE VEGETABLE DIGESTIVE "CAROID."

TYPHOID FEEDING.—Says Dr. J. M. Shaw, of East Springfield, Ohio, "Instead of adopting the starvation plan during the first two weeks of typhoid fever, the writer has prescribed Caroid with excellent results. That a careful regulation of diet is a point of great importance in the management of cases of typhoid fever, is of course, well understood, for the peculiar ulceration of the bowels in this disease gives rise to a danger of its own which demands special consideration and treatment. The food,

therefore, should be thoroughly digested, leaving no unnecessary residue to create irritation in its passage through the intestines, but at the same time it is of equal importance that the food should be nourishing, and general nutrition maintained.

Milk has been selected as the chief article of diet in these cases, not so much on account of its food qualities as because of its liquid character, its ease of administration, and lack of intestinal waste when properly digested. But even milk has been found objectionable in many cases, the deficiency or vitiation of the digestive secretions causing it to remain undigested and unabsorbed in the alimentary tract, giving rise to fermentation, or passing through in the form of tough curds, setting up increased irritation of the inflamed mucous surfaces and often producing dangerous hemorrhages.

In the experience of the writer, pepsin fails to convert the casein of milk into true assimilable products. I have found, however, that the conversion is accomplished by the use of the vegetable ferment "Caroid," which seems to possess a remarkable action upon casein, as can be determined by stirring three or four grains of the powder in a glass of pure, fresh milk heated until it is lukewarm, and allowing same to stand two or three hours in a temperature of about 100° F. and applying the same test to other ferments for comparison. It will be seen that Caroid produces an immediate separation of the casein from the whey, which is soon followed by the gradual digestion of the former until it is entirely dissolved and peptonized. The value of such action in the alimentary canal in typhoid fever is at once apparent.

CARODIZED MILK.—Dr. Isaac Van Deusen, Philadelphia, suggests the following in typhoid fever feeding: To each pint of milk (heated lukewarm) add four grains of Caroid, or a teaspoonful of the Essence of Caroid. After the milk has curdled, beat it until the curd is broken up and almost reliquified.

The advantages of above are (1st), dense, indigestible curds are avoided. It is impossible to form another curd when milk is thus treated. (2d), Caroid action, which takes place irrespective of media, whether acid, alkaline, or neutral, will go on in both the stomach and intestines until the casein is peptonized. Each feeding should be prepared freshly, as by standing the peptonizing process renders the milk bitter.

The milk after above treatment may be flavored with extract of beef or other flavoring to afford variety to the palate.

Miscellaneous.

CHANGES IN THE MEDICAL CORPS OF THE NAVY.

Week ended August 31, 1901.

August 27. P. A. Surgeon R. M. Kennedy, detached from the Bennington, when placed out of commission, and ordered home.

P. A. Surgeon D. H. Morgan, detached from the Monongahela, and ordered to the Naval Hospital, Newport, R. I., immediately for treatment.

Assistant Surgeon R. T. Atkinson, detached from the Washington Naval Hospital and ordered to the Wabash, immediately.

Assistant Surgeon A. W. Balch, detached from the Wabash, and ordered to the Monongahela, immediately.

August 30. Medical Inspector D. N. Bertollette, detached from the New York and ordered to the Brooklyn as Fleet Surgeon.

Surgeon J. E. Gardner, detached from the Brooklyn and ordered to the New York.

Assistant Surgeon J. M. Brister, ordered to the Marine Brigade, Asiatic Station.

Week ended September 7, 1901.

August 31. Assistant Surgeon E. Thompson, detached from the Solace and ordered home and wait orders.

September 4. Medical Director E. S. Bogert, retired, detached from the Boston Navy Yard, September 5th, and ordered home.

Surgeon I. W. Kite, detached from the Monterey, upon reporting of relief, and ordered home to wait orders.

Surgeon V. C. B. Means, detached from the marine recruiting rendezvous, September 25th, and ordered to the Monterey as relief of Surgeon I. W. Kite, sailing from San Francisco, Cal., by army transport about October 1st.

Surgeon G. T. Smith, ordered to the Amphitrite as relief of Surgeon J. M. Edgar.

Surgeon J. M. Edgar, detached from the Amphitrite, upon reporting of relief, and ordered home and to wait orders.

Assistant Surgeon E. O. Huntington, ordered to the Naval Hospital, New York.

Assistant Surgeon J. F. Murphy, detached from the Naval Academy, upon reporting of relief, and ordered to the Indiana.

Assistant Surgeon W. M. Garton, detached from the Indiana and ordered to the Naval Academy as relief of Assistant Surgeon J. F. Murphy.

September 5. Medical Director G. F. Winslow, ordered to the naval recruiting rendezvous, Boston, Mass., October 1st.

Surgeon C. J. Decker, ordered to the marine recruiting rendezvous, San Francisco, Cal., September 25th, as relief of Surgeon V. C. B. Means.

Assistant Surgeon P. E. McDonald, detached from the Naval Museum of Hygiene, Washington, D. C., September 9th, and ordered to the Constellation as relief of Assistant Surgeon C. A. Crawford.

Assistant Surgeon C. A. Crawford, detached from the Constellation, upon reporting of relief, and ordered to the Naval Hospital, Chelsea, Mass., as relief of Assistant Surgeon R. R. Richardson.

Week ending September 14, 1901.

September 7. Medical Inspector H. Wells, ordered to the Boston Navy Yard, September 14th.

Medical Inspector W. E. Taylor, retired, ordered to the Honolulu Station.

Medical Inspector R. C. Persons, ordered to duty at the marine recruiting rendezvous, New York, September 9th, and other special duty.

Surgeon M. H. Crawford, detached from duty at the marine recruiting rendezvous, New York, N. Y., September 9th, and ordered to duty in connection with fitting out the Illinois, and to duty on that vessel when put in commission.

Passed Assistant Surgeon D. N. Carpenter, detached from the Naval Hospital, Norfolk, Va., and ordered to duty in connection with fitting out the Illinois, and to duty on that vessel when put in commission.

September 9. Passed Assistant Surgeon G. D. Costigan, resignation accepted, to take effect September 16th.

Pharmacist J. Cowan, detached from the Naval Hospital, Mare Island, Cal., ordered home and granted sick leave for one month.

September 11. Passed Assistant Surgeon C.E. Riggs, detached from the New York Navy Yard and ordered to the Port Royal Naval Station.

Assistant Surgeon J. C. Thompson, detached from the Port Royal Naval Station and ordered to the Columbia.

Assistant Surgeon R. M. Young, detached from the Naval Hospital, New York, September 14th, and ordered to the New York Navy Yard same day.

September 12. Assistant Surgeon A. G. Grunwell, detached from the Brooklyn and ordered home.

September 21. No orders.

EXAMINATIONS FOR ARMY MEDICAL DEPARTMENT.

The examination of applicants for appointment as Assistant Surgeon in the Army has been resumed in Washington and San Francisco; the Army Medical Boards convened in those cities will remain in session so long as there are candidates to be examined. Seventy-six vacancies in the Medical Department still remain to be filled, and as it is desired by the military authorities that the Department be filled up to its full legal limit as early as practicable, all eligible applicants will be afforded opportunity for examination; those found qualified will be commissioned at an early date. Full information as to eligibility, nature and scope of examination, etc., may be obtained upon application to the Surgeon General, U. S. Army, Washington, D. C.

NEUROTIC CONDITIONS OF CLIMATIC PERIOD.

This form of neuroses is considered by the latest and best authorities as essentially hysterical and neurasthenic; a statement that seems borne out at least in part by the predominance of the various reflexes. How far the latter condition may be due to irritation of the nerve-ends in the ovary depends, it would seem, on the degree of atrophy and consequent contraction of the tissues. The ordinary physical disturbances due to menstruation in some cases persist and cause various phenomena and often much annoyance. And while many of these symptoms may be, and some of them doubtless are, neurasthenic, it will be found wise not to abandon special medication. In the greater number of cases, two five-grain antikamnia tablets repeated every hour if necessary, will be found to give entire relief. Under this treatment the reflexes are naturally abolished, the nerves are soothed and the system returns to its normal equipoise. Antikamnia tablets are essentially painkillers, yet in this instance they nullify the reflexes almost precisely after the same physiological fashion, so to speak, as they relieve pain, and without unpleasant after-effects. In cases of threatened metrorrhagia it is always advisable to administer "antikamnia and codeine tablets" as frequently as may be found necessary, say one every hour until six are taken.

GEORGE BROWN, A. M., M. D.,
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TO CHECK NAUSEA AND VOMITING.

Ice or cold water applied to the back of the neck is said to at once control nausea and vomiting.